PARASOL AND METHOD FOR REPAIRING A HOLE

Related Applications

The present invention claims priority on provisional patent application, Serial No. 60/449,497, filed on September 2. 2003, entitled "Parasol Patch for Drywall".

Field of the Invention

The present invention relates generally to the field of repair systems for holes and more particularly to a method and kit for repairing a hole.

Background of the Invention

It is common for holes to occur in dry wall from doors opening too fast, objects being thrown or accidentally bumping the wall while being moved. Numerous solutions have been devised for patching these holes. For instance, a mesh may be adhered over the hole and then a patching compound applied to the mesh. This solution leaves a slightly raised area that may be visible. Another solution is to cut a larger hole around the hole and to cut a mating piece of dry wall that is placed in the hole. This requires one to have the skill and tools, to cut accurately, a spare piece of dry wall and requires the user to be able to tape and mud around the surrounding of the hole. This may also leave a raised edge.

Thus there exists a need for a simple method and supplies in the form of a kit for repairing holes in dry wall, or other walls such as vehicle walls or skins, that does not leave a bump or edge where the hole was located and does not require the user to purchase tools and a large amount of supplies.

Summary of Invention

A method of patching a hole in a wall includes the steps of placing a support on a reverse side of the wall. The support is free floating. A repair compound is applied over the support. In one embodiment, a support apparatus is inserted into the hole. Next, the support apparatus is expanded to form a backing on the reverse side of the wall.

In one embodiment, an arm of the support apparatus is held. Next an actuating device is pushed to expand a plurality of appendages. The appendages are pulled snuggly against the reverse side of the wall.

In one embodiment, the repair compound is allowed to cure to form a cured surface. The cured surface is then sanded. A finish may be applied to the hole.

In another embodiment, the repair compound is allowed to cure to form a cured surface. A protruding portion of an arm of the support is removed. A finish is then applied to the cured surface.

In one embodiment, a finish coating is applied over the cured surface. The finish coating is prepared to form a matching surface.

In one embodiment, a repair kit for a wall has a support apparatus that forms a backing on a reverse side of the wall. The support is free floating. A repair compound is included in the kit. In one embodiment, the kit includes a set of instructions and a shaping tool.

In one embodiment, the support apparatus is expandable.

In another embodiment, the repair compound is a dry wall patch compound. In another embodiment, the repair compound is an automotive repair material.

In one embodiment, the repair compound includes a first portion for filling the hole and a second portion for finishing a surface.

One embodiment of the support apparatus has an arm. A number of appendages are attached to the arm. An actuating device is attached to the appendages and slides over the arm. There is webbing between the appendages.

A parasol having a cover and number of appendages attached to the cover. An activation mechanism is coupled to the appendages. The activation mechanism has at least two legs. In one embodiment, the activation mechanism has a pair of legs that are separable. In one embodiment, the at least two legs are deformable. In another aspect of the invention, the at least two legs are formed by a loop.

In one embodiment, the appendages may be attached to a gift bow. The pair of legs may be made of wire.

Brief Description of the Drawings

FIG. 1 is an exploded view of a kit for repairing a hole in accordance with one embodiment of the invention;

FIG. 2 is a side view of a support apparatus in accordance with one embodiment of the invention;

FIG. 3 is a cross sectional view of a support apparatus in accordance with one embodiment of the invention;

FIG. 4 illustrates a first step in repairing a hole in accordance with one embodiment of the invention;

FIG. 5 illustrates a second step in repairing a hole in accordance with one embodiment of the invention;

FIG. 6 illustrates a third step in repairing a hole in accordance with one embodiment of the invention;

FIG. 7 illustrates a fourth step in repairing a hole in accordance with one embodiment of the invention;

FIG. 8 illustrates a fifth step in repairing a hole in accordance with one embodiment of the invention;

FIG. 9 illustrates a sixth step in repairing a hole in accordance with one embodiment of the invention;

FIG. 10 is a side view of a parasol in accordance with one embodiment of the invention;

FIG. 11 is a cross sectional view of a parasol in accordance with one embodiment of the invention; and

FIG. 12 is a cross sectional view of a parasol attached to a gift bow in accordance with one embodiment of the invention.

Detailed Description of the Drawings

FIG. 1 is an exploded view of a kit 10 for repairing a hole in accordance with one embodiment of the invention. The kit 10 may come in a box 12. In the box 12 is a support apparatus or backing apparatus 14, a patching compound 16, a finishing compound 18, a piece of sandpaper 20 and a scrapper or shaping tool 22. Commonly, the kit will also include instructions 23. FIG. 2 is a side view of a support apparatus 14 in accordance with one embodiment of the invention. The support apparatus 14 has an arm 24 attached to a plurality of appendages 26 (See FIG. 3) and is an integrated support apparatus not a collection of disjointed parts. The appendages 26 are attached to an actuating device 28 by a plurality of extenders 30. Between the appendages 26 is a webbing material 32. The webbing material 32 may be paper, plastic and may be solid or a mesh. When the actuator ring 28 is pushed towards the tip 34 where the plurality of appendages 26 are hinged to the arm 24, the extenders 30 push the appendages out away from the arm 24. In one embodiment, the actuation ring 28 has a tear line or perforation line 36. Note that while the support apparatus 14 is shown as a parasol like device other embodiments are possible as long as they provide a backing for the repair compound. For instance, the backing could be a folded conical shaped sheet with a arm attached to the center of the sheet. The conical shaped sheet may naturally expand from its folded position. The sheet may then be inserted into a hole in the wall and once it is through the hole it will expand. The user can then pull on the arm to further flatten the sheet against the back of the wall. In addition, the backing does not require any glue to hold it in place. Other embodiments, will be apparent to those skilled in the art and all such embodiments are encompassed by the invention.

In one embodiment the patching compound is a dry wall compound. In another embodiment, the patching compound is an automotive, boat, plane or other vehicle patching compound.

FIGs. 4-9 explain the steps in patching a hole in a wall. Note a wall as used herein can be a wall in a building, or the wall or skin of a car, boat or other vehicle. In the first step, FIG. 4, the support apparatus 14 is placed near a hole 38 and the support apparatus 14 is placed in a closed position. The next step, FIG. 5, is to insert the support apparatus 14 into the hole 38. The next step, FIG. 6, is to expand the support apparatus 14 by pushing on the actuating device 28 and then to pull the expanded support apparatus 14 gently against the reverse side 40 of the wall 42. Note that the support apparatus 14 is free floating and therefore can be easily repositioned, unlike prior art techniques that require wedging a support between two walls. In one embodiment, a portion of the actuating device 28 is removed once support apparatus is firmly against the reverse side of the wall 40. In another embodiment, wires or another device is used to hold the support apparatus 14 from the front side 43 of the wall. In the next step, FIG. 7, the user applies the patching compound 44 over the support or backing 46 using a knife or scrapper 22. In one embodiment the patching compound has to be prepared by adding water to the patching powder 16. If the patching material is fiberglass or another material another preparation step may be used. Once the patching compound 44, FIG. 8, has cured to form a cured surface 48 the arm 24 may be removed. The arm 24 may be made of a material that snaps off or it may have to be cut. Note that the patching compound 44 is at least as thick as the wall 42 and may even wrap around the reverse side 40 of the wall 42. In the last step, FIG. 9, a finishing compound is applied over the cured surface 48. The finishing compound may then be textured or sanded to match the surrounding wall. A number of variations on the finishing step will be apparent to those skilled in the art.

FIG. 10 is a side view of a parasol 60 in accordance with one embodiment of the invention. The parasol 60 has a cover 62 often made of paper attached to a plurality of appendages 64 (See FIG. 11). The parasol 60 has an actuating ring 66 coupled to the appendages 64 by a plurality of actuating arms 68. The actuating mechanism (66 & 68) includes at least two actuating legs 70. By pulling the legs 70

in opposite directions the parasol 60 is deployed (expanded). When the legs 70 are made of wire or another deformable and re-formable material, the legs 70 may be wrapped around a front surface 43 (See FIG. 6) of a wall 42 to hold the parasol 70 in place. This allows the user to place the repair compound in the hole without having to hold onto the parasol 60. In addition, the parasol 60 has a number of other uses. For instance, the parasol 60 may then be placed in a user's hair or attached to a gift bow 72 as shown in FIG. 12. Note that the parasol 60 may have legs 70 that are connected at either or both ends to form a loop as shown in FIG. 11. However, in this embodiment at least two separable legs 70 at the actuating ring 66 may be used to deploy the parasol 60. The invention specifically encompasses the situation where the legs 70 are originally connected together, but the user may break the connection near the actuation ring 66 to separate the legs70.

Thus there has been described a method and kit for repairing a hole in a wall that is simple to use, supports the patching compound from the reverse side of the wall and has a free floating support that is easy to reposition. In addition, the support forms a convex area of patching compound on the reverse side of the wall, instead of a concave area of patching compound or just a surface layer of compound. This results in an extremely sturdy patch.

In addition, there has been described a parasol that has at least two separable legs. This makes the parasol well suited for repairing a hole in the wall or as a decorating item.

While the invention has been described in conjunction with specific embodiments thereof, it is evident that many alterations, modifications, and variations will be apparent to those skilled in the art in light of the foregoing description. Accordingly, it is intended to embrace all such alterations, modifications, and variations in the appended claims.